

# PATENT ABSTRACTS OF JAPAN

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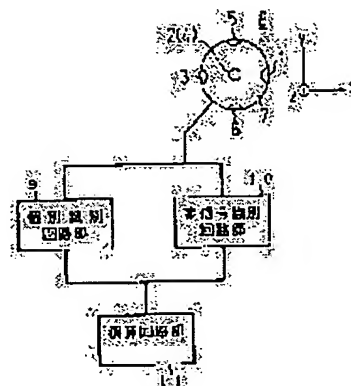
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## (54) SOUND SOURCE DIRECTION DISTINGUISHING SENSOR

### (57)Abstract:

PURPOSE: To construct a sound source direction distinguishing sensor in small size and light weight by allowing a calculation circuit part to calculate the space position direction of the sound source from a differential signal of the output signal of a microphone, which is given by a differential signal sensing circuit, and a receipt sound pressure signal of microphone given by an individual signal sensing circuit.

CONSTITUTION: Six non-directional microphones 1-6 are embedded consolidatedly in a sphere 7 near the surface in such an arrangement that they are located at 90deg. spacing from one another viewed from the center. This is further equipped with an individual distinguishing circuit part 9 to sense the max. value of microphone signals, a differential signal distinguishing circuit part 10 to sense difference between the mating signals, and a calculating circuit part 11 to calculate the direction of sound source from signals given by these circuit parts 9, 10. The differential signal distinguishing circuit part 10 calculates the time difference from the sound receipt signal of the three sets of mating microphones. If therein the sound source includes a certain specific frequency, a filter is set in the input part of the differential signal distinguishing circuit part 10, and the time difference is calculated. Thereby the direction of sound source existing in three-dimensional space can be calculated simply and accurately.



## LEGAL STATUS

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